

WM-11 LIQUID WASTE MANAGEMENT

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BMP Objectives

- ☐ Perimeter Control
- ☐ Slope Protection
- ☐ Borrow and Stockpiles
- ☐ Drainage Areas
- ☐ Sediment Trapping
- ☒ Stream Protection
- ☐ Temporary Stabilizing
- ☐ Permanent Stabilizing

Definition and Purpose

Procedures and practices to prevent discharge of pollutants to the storm drain system or to watercourses as a result of the creation, collection, and disposal of non-hazardous liquid materials.

Appropriate Applications

This BMP is applicable to construction projects that generate any of the following non-hazardous byproducts, residuals, or wastes:

- Drilling slurries and drilling fluids
- Grease-free and oil-free wastewater and rinse water
- Dredgings
- Other non-stormwater liquid discharges not permitted by separate permits

Limitations

- Disposal of some liquids may be subject to specific laws and regulations, or to requirements of other permits secured for the construction project (e.g., National Pollutant Discharge Elimination System [NPDES] permits, Army Corps of Engineers permits, etc.).
- This fact sheet does not apply to dewatering operations (see NS-2 [Dewatering Operations]), solid waste management (WM-6 [Solid Waste Management]), hazardous wastes (see WM-7 [Hazardous Waste Management]), or concrete slurry residue (see WM-9 [Concrete Waste Management]).
- This fact sheet does not apply to non-stormwater discharges permitted by any NPDES permit held by ITD. Typical permitted non-stormwater discharges can include: water line flushing, landscape irrigation, diverted stream flows, rising groundwater, pumped groundwater, discharges from potable water sources, foundation drains, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, and discharges or flows from emergency firefighting activities.

General Practices

The Contractor's Water Pollution Control Manager shall oversee and enforce proper liquid waste management procedures and practices.

- Follow all applicable federal, state, and local regulations.
- Instruct employees and subcontractors how to safely differentiate between non-hazardous liquids and potential or known hazardous liquids.
- Instruct employees, subcontractors, and suppliers that it is unacceptable for any sediment-laden liquid to enter any storm drainage device, waterway, or receiving water without treatment.
- Educate employees and subcontractors on the proper handling procedures for all liquids generated during construction activities.
- Hold regular meetings (or incorporate into regular safety meetings) to discuss and reinforce disposal procedures.
- Verify which non-stormwater discharges are permitted by the CGP. Some listed discharges may require pre-treatment or treatment.
- Manage wash water and rinse water from vehicle and equipment cleaning operations (see NS-8 [Vehicle and Equipment Cleaning]).

Containing Liquid Wastes

- Drilling residue and drilling fluids shall not be allowed to enter storm drains and watercourses and shall be disposed of outside the highway right-of-way in conformance with any project special provisions.
- If an appropriate location is available, drilling residue and drilling fluids may be dried in a containment facility constructed in conformance with the provisions detailed in WM-7 (Concrete Waste Management).
- Liquids generated as part of an operational procedure, such as water-laden dredged material and drilling mud shall be contained and not allowed to flow into drainage channels or receiving waters prior to treatment.
- All liquids generated during construction shall be contained in a controlled area, such as a holding pit, sediment basin, roll-off bin, or portable tank.
- Containment devices must be structurally-sound and leak-free.
- Containment devices must be of sufficient quantity or volume to completely contain the liquid wastes generated.
- Precautions shall be taken to avoid spills or accidental releases of contained liquids. The education measures and spill response procedures outlined in WM-5 (Spill Prevention and Control) shall be applied.
- Containment areas or devices shall not be located where accidental release of the contained liquid can threaten health or safety, or discharge to water bodies, channels, or storm drains.

Capturing Liquid Materials

- Capture all liquid materials running off of a surface that have the potential to affect the storm drainage system.
- Do not allow liquid materials to flow or discharge uncontrolled. Use temporary dikes or berms to intercept flows and direct them to a containment area or device for capture.
- If the liquid is sediment-laden, use a sediment trap (see SC-10 [Sediment Trap]) for capturing and treating the liquid stream, or capture in a containment device and allow sediment to settle.

Disposing of Liquid Materials

- The typical method is to dewater the contained liquid waste, using procedures such as those described in NS-2 (Dewatering Operations) and SC-9 (Sediment/Desilting Basin), and dispose of resulting solids per WM-6 (Solid Waste Management).
- The method of disposal for some liquids may be prescribed in Water Quality Reports, NPDES permits, Environmental Impact Reports, 404 permits, etc., and may be defined elsewhere in the Special Provisions.
- Some liquids, such as those generated from dredged material, may require testing and/or review to determine whether it is hazardous before a disposal method can be determined.
- Disposal of hazardous waste is discussed in the Standard Specifications.
- If necessary, non-hazardous liquid materials shall be treated prior to disposal. Treatment may include, though is not limited to, sedimentation, filtration, and chemical neutralization.

Maintenance and Inspection

- Conduct inspections as required by the NPDES permit or contract specifications.
- Remove deposited solids in containment areas and capturing devices as needed and at the completion of the task. Dispose of any solids as described in WM-6 (Solid Waste Management).
- Repair containment areas and capturing devices as needed.